

Title (en)  
FAN

Title (de)  
LÜFTER

Title (fr)  
VENTILATEUR

Publication  
**EP 0995040 A1 20000426 (DE)**

Application  
**EP 99932636 A 19990506**

Priority  
• DE 9901360 W 19990506  
• DE 19821833 A 19980515

Abstract (en)  
[origin: DE19821833A1] The fan has an impeller (11) and an electric motor (12) driving it. The motor has a stator (13) and a rotor (16) fixed to an output shaft (21). The rotor is designed as an outside rotor with a bell-shaped pole housing (17) overlapping the stator. The impeller is fixed to the pole housing and overlaps this axially, at least partially. It touches the outer sleeve of the pole housing at several places. These contact places of the impeller lie at those places of the pole housing in which the largest vibration amplitudes occur, and lie along the bell edge of the pole housing.

IPC 1-7  
**F04D 29/66**

IPC 8 full level  
**F04D 25/06** (2006.01); **F04D 29/66** (2006.01)

CPC (source: EP KR US)  
**F04D 25/0613** (2013.01 - EP US); **F04D 29/66** (2013.01 - KR); **F04D 29/668** (2013.01 - EP US)

Citation (search report)  
See references of WO 9960277A1

Designated contracting state (EPC)  
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**DE 19821833 A1 19991118**; BR 9906449 A 20000926; DE 59911687 D1 20050407; EP 0995040 A1 20000426; EP 0995040 B1 20050302; ES 2238840 T3 20050901; JP 2002515569 A 20020528; JP 4294866 B2 20090715; KR 100553465 B1 20060222; KR 20010014126 A 20010226; US 6488485 B1 20021203; WO 9960277 A1 19991125

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**DE 19821833 A 19980515**; BR 9906449 A 19990506; DE 59911687 T 19990506; DE 9901360 W 19990506; EP 99932636 A 19990506; ES 99932636 T 19990506; JP 2000549860 A 19990506; KR 19997012185 A 19990506; US 44653499 A 19991228